

CITY OF MESA
MESA, ARIZONA

FIRE STATION NO. 209 RENOVATION

PROJECT NO. 06-911-001

ADDENDUM NO. 2



In reference to the Approved Plans and Specifications for the subject project, please note the following items which shall be added or changed:

ADDITIONAL PRE-BID SITE VISIT

ITEM NO. 1: An additional pre-bid site visit has been scheduled for Wednesday, December 19, 2007 at 10:30 am (local time). Interested parties shall gather at the east public entrance of the fire station at 10:30 am.

BID PROPOSAL FORM

ITEM NO. 2: Delete the Bid Proposal and replace it with the revised Bid Proposal labeled "Addendum No. 2", which is attached and consists of three (3) pages.

GENERAL

ITEM NO. 3: It has been determined that the existing fire alarm system at the fire station is no longer manufactured and that new fire alarm devices are not compatible with the existing system. Therefore, the project scope has been revised to require removal of the existing fire alarm panel and the existing fire alarm system devices and components throughout the entire fire station and to require that the Contractor provide and install a new complete fire alarm system (including, but not limited to new panel, new devices, new wiring and supplemental conduit) throughout the entire fire station in compliance with current City fire code and building codes. The remainder of the items of this Addendum, excepting Item No. 10, relate to these changes.

SPECIAL PROVISIONS

ITEM NO. 4: On page 27 of the Special Provisions, add a new Section 59, "CONTRACTOR RESPONSIBLE FOR DESIGN AND PERMITTING OF FIRE ALARM SYSTEM", which shall read as follows:

59. CONTRACTOR RESPONSIBLE FOR DESIGN AND PERMITTING OF FIRE ALARM SYSTEM:

The detailed design for the new fire alarm system to be installed by the Contractor throughout the entire fire station is not shown in the Approved Plans. The Contractor shall be responsible to provide the detailed design through the

services of a properly licensed fire alarm subcontractor in accordance with the fire alarm technical specifications [which specifications are added to the project by this Addendum].

The building permit that has been approved for this project by the City of Mesa's Building Safety Division also does not cover the new fire alarm system work. By agreement with the Building Safety Division, the detailed fire alarm system design will be reviewed and building permits issued (when approved) through a "deferred submittals" process.

The General Contractor shall submit the detailed fire alarm system design to the City's Engineering Department using the standard shop drawing submittal process. The Engineering Department will review said submittal to make sure the submittal is acceptable for further review by the Building Safety Division. If the Engineering Department determines that the submittal is not ready for building permit review, the Contractor shall make the corrections and/or submit the required additional information, as directed by Engineering and shall resubmit the revised documents to Engineering. When the submittal is judged by Engineering to be ready for building permit review, Engineering will route the submittal to the Building Safety Division for their review or will direct the Contractor to make the submittal to the Building Safety Division. Multiple reviews by Engineering and/or the Building Safety Division may be required. The Contractor is encouraged to submit the fire alarm system submittal information expeditiously. The City will not grant extra contract time or additional compensation due to multiple review cycles or late submittal.

The Contractor shall include in the fire alarm submittal detailed information, detailed design, cut sheets, and calculations as required by the technical specifications, and any other information that is necessary to obtain approval of the new fire alarm system design from the building code officials.

There is no cost to the Contractor for plan reviews by the Engineering Department and/or Building Safety Division or for the resultant building permits.

TECHNICAL SPECIFICATIONS

ITEM NO. 5: In the Technical Specifications, add Section 16710 FIRE ALARM SYSTEM, which is attached to this Addendum (4 pages).

PLANS

ITEM NO. 6: In the "LIGHTING/POWER/FIRE ALARM PLAN" on Sheet E1 of the Approved Plans, remove the existing fire alarm control plan (FACP) and replace it with a new panel.

ITEM NO. 7: On Sheet E1 of the Approved Plans, the fire alarm devices in Room 102 (using the room numbering shown on Sheet A2 of the Approved Plans) shall be as shown on Sheet E1, but the new fire alarm devices and components required in other portions of the building are not shown.

ITEM NO. 8: On Sheet E1 of the Approved Plans, under "General Notes", delete Note 14.

ITEM NO. 9: On Sheet E1 of the Approved Plans, under "Fire Alarm Notes", add Notes 7 through 10 to read as follows:

7. Remove existing fire alarm control panel and all existing fire alarm devices.
8. Install new fire alarm control panel, new fire alarm devices, and any new conduit and conductors as may be required. Existing conduits may be re-used if feasible, as approved by the City Inspector. All devices shall be ADA compliant.
9. Contractor shall be responsible to obtain at his own expense the complete fire alarm system design, and shall obtain a building permit from the City of Mesa's Building Safety Division for said work.
10. The design shall include, but not be limited to, the following:
 - a. Floor Plan showing all fire alarm panels, devices, conduit (new and existing)
 - b. Fire Alarm Riser diagram
 - c. Voltage drop calculations
 - d. Battery calculations
 - e. Catalog cut sheets of all devices and new panel board

ITEM NO. 10: On Sheet E1, the "message display" board shown in the "Lighting/Power/Fire Alarm Plan" will be provided by the City of Mesa.

ITEM NO. 11: On Sheet E2, remove the "Fire Alarm System Voltage Drop Calculations", "Fire Alarm System Battery Calculations", and "Fire Alarm Riser Diagram" details and tables from this sheet without replacement. The detailed fire alarm design is to be provided by the Contractor, as noted elsewhere in this Addendum.

ATTACHMENTS

- Revised Bid Proposal Form – 3 pages
- Fire Alarm System Technical Specification – 4 pages

Contractor's Signature

Date

Note: A signed copy of this Addendum shall be returned with the Contractor's proposal and/or the Contractor shall acknowledge this Addendum in the space provided on the Proposal.

JACK C. FRIEDLINE
Deputy City Manager

CITY OF MESA
MESA, ARIZONA

FIRE STATION NO. 209 RENOVATION
7035 EAST SOUTHERN AVENUE

ADDENDUM NO. 2

PROJECT NO. 06-911-001

PROPOSAL to the Deputy City Manager of the City of Mesa,

In compliance with the Advertisement for Bids, by the Deputy City Manager, the undersigned bidder:

Having examined the contract documents, site of work, and being familiar with the conditions to be met, hereby submits the following Proposal for furnishing the material, equipment, labor, and everything necessary for the completion of the work listed and agrees to execute the contract documents and furnish the required bonds and certificates of insurance for the completion of said work, at the locations and for the prices set forth on the inside pages of this form.

Understands that construction of this project shall be in accordance with all applicable Uniform Standard Specifications and Standard Details except as otherwise required by the project Plans and Special Provisions.

Understands that his Proposal shall be submitted with a Proposal guarantee of cash, certified check, cashier's check, or surety bond for an amount not less than ten percent (10%) of the amount bid.

Agrees that upon receipt of Notice of Award from the City of Mesa, he will execute the contract documents.

Work shall be completed within thirty (30) consecutive calendar days, beginning with the day following the starting date specified in the Notice to Proceed. Said Notice will be issued when requested by the Contractor, or, when, in the opinion of the Engineer, sufficient materials are, or will be available for the continuous prosecution of the work.

Acknowledges that bid prices submitted include all applicable sales and/or use taxes; and no further compensation will be approved for these items.

The Bidder hereby acknowledges receipt of and agrees his Proposal is based on the following Addenda:

CITY OF MESA
MESA, ARIZONA

FIRE STATION NO. 209 RENOVATION
7035 EAST SOUTHERN AVENUE

PROJECT NO. 06-911-001

ADDENDUM NO. 2

BID SCHEDULE
(Page 1 of 1)

| ITEM NO. | DESCRIPTION | QUANTITY | UNIT PRICE | TOTAL PRICE |
|------------------------------------|--|----------|--------------------|------------------|
| 1. | All work required by the project plans and specifications, excluding fire alarm system work | LUMP SUM | \$ <u>LUMP SUM</u> | \$ _____ |
| 2. | Complete new fire alarm system, including removing existing system, designing new system, permitting, approvals, installation and all other work per the Approved Plans and Specifications | LUMP SUM | \$ <u>LUMP SUM</u> | \$ _____ |
| 3. | Allowance for permit fees | LUMP SUM | \$ <u>LUMP SUM</u> | \$ <u>500.00</u> |
| TOTAL BASE BID (Items 1 through 3) | | | | \$ _____ |

ADDENDUM NO. 2

This Proposal is submitted by _____,
a corporation organized under the laws of State of _____, a partnership consisting of
_____ or individual trading
as _____; of the City of _____, and is the
holder of Arizona State Contractor's License: Classification _____
No. _____.

CONTRACTORS ARE REMINDED IT IS A VIOLATION OF LAW TO SUBMIT A BID IF NOT
PROPERLY LICENSED. BIDS SUBMITTED WITHOUT DESIGNATING THE CONTRACTOR'S
LICENSE CLASSIFICATION AND NUMBER, IN THE SPACES PROVIDED ABOVE, SHALL BE
REJECTED. BIDS SUBMITTED BY CONTRACTORS WITHOUT THE APPROPRIATE LICENSE
SHALL BE REJECTED BY THE CITY OF MESA.

ALSO, CONTRACTOR ACKNOWLEDGES THAT BID PRICES SUBMITTED INCLUDE ALL
APPLICABLE SALES AND/OR USE TAXES; AND NO FURTHER COMPENSATION SHALL BE
APPROVED FOR THESE ITEMS.

Respectfully submitted,

Firm

Address

City State Zip

Phone

Fax

By (Signature)

Name and Title (Print)

SECTION 16710

FIRE ALARM SYSTEM

TECHNICAL SPECIFICATIONS

A. GENERAL

Furnish and install a complete Class "A" addressable fire alarm system as described herein. The fire detection system shall comply with 2002 NEC Article 760, 2002 NFPA, U.L. Inc., and 2002 NEC, 2003 IFC, 2003 IBC, and 2003 IMC, as adopted by the City of Mesa and shall meet ADA Standards and installation requirements.

All wiring between control panels and detection system devices shall be as recommended by the manufacturer and all applicable standards and codes. Acceptable manufactured systems shall be Fire-Lite, Kidde-Fenwal, EST and Simplex/Grinnell. No substitutions outside of the foregoing list are permitted.

All components of the system shall be the products from one manufacturer's system.

B. FIRE ALARM CONTROL PANEL

The fire alarm control panel shall be an intelligent response controller. The controller shall be capable of supporting up to 500 supervised inputs/outputs per single line network without any change in hardware. The controller shall have an 80-character liquid crystal display, and have a minimum of two (2) 40-character lines. System shall support analog/addressable or traditional hardwired methods.

The controller shall differentiate between long-term drift above the pre-alarm threshold (maintenance alert, indicating the need for cleaning) and a fast rise above the pre-alarm threshold (indicative of a smoldering fire). The maintenance alert shall be annunciated as an alert on the LCD only and shall not display a trouble or an alarm.

The panel and all ancillary devices shall be housed in a wall mounted, cabinet, sized to house all required components.

The power supply shall provide 24-volt DC operating and emergency power to the system and shall have 24-hour plus five (5) minutes in total alarm condition battery back-up. Input voltage shall be 120-volt AC.

C. PHOTOELECTRIC SMOKE DETECTORS

The sensor shall incorporate a built-in type identification so the system can identify the type of sensor. The sensor shall be continually monitored to measure any change in sensitivity because of the environment (dirt, smoke, temperature, humidity, etc.). The sensor shall use the photoelectric principle to measure smoke density and shall, on command from the control panel, send data to the panel representing the analog value of the smoke density. The sensor shall also provide advanced indication of the analog value of the level of smoke density to the panel indicating that maintenance is required, thus reducing the maintenance required to routinely inspect all sensors in order to ensure normal operation. The sensor sensitivity shall be adjustable by device.

Fire Alarm System - Technical Specifications

D. HEAT SENSOR

The sensor shall be easy to install into a twist-lock base. The sensor shall incorporate a built-in type identification so the system can identify the type of sensor. The sensor shall be continually monitored to measure any change in their sensitivity because of environment (dirt, temperature, humidity, etc.). The sensor shall use dual solid state thermistors and shall monitor the ambient temperature from -10 degrees to +60 degrees C. and provide a fast response to rapid increases in temperature. The sensor, on command from the control panel, shall send data to the panel representing the analog value of the ambient temperature.

E. MONITOR MODULE

The monitor module shall be used to connect a supervised conventional initiating device or zone of supervised conventional initiating devices (water flow switches, tamper switches, manual pull stations, conventional (4) wire duct detectors, etc.) to the system. The sensor shall be capable of **Class "A"** supervised wiring to the initiating device. The monitor module shall provide address setting means using rotary decimal switches and also store an internal identifying code which the control panel shall use to identify the type of device. The monitor module shall contain an integral LED that flashes each time the monitor module is pulled.

F. CONTROL MODULE

The control module shall be used to connect and supervise a conventional indicating device or zone of indicating devices that require an external power supply, such as horns, strobes, and smoke dampers. The control module shall be capable of operating as a relay (dry contact form C., rated at 25 watts maximum). The module shall mount in a 4-inch square, 2 1/8-inch deep electrical box and shall be capable of **Class "A"** supervised wiring to the indicating or control device. The control module shall contain an integral LED that shall flash each time the module is pulled. The control module shall provide address setting means using rotary decimal switches, and also store an internal identifying code which the control panel shall use to identify the type of device. The N.C. dry contact shall be used to shut smoke dampers when associated duct smoke detectors have activated HVAC shutdown.

The control module shall be connected to a City provided dedicated telephone line to the approved monitoring service.

G. MANUAL PULL STATIONS

Pull stations shall be double action, manual, of the non-coded type with terminals and contain an internal toggle switch. The red manual station shall be constructed of aluminum with a key reset switch for positive resetting action. Stations shall be used with an addressable monitor where point addressability is required.

H. STROBES

Strobes shall operate on 24-volt DC and be compatible with DC supervision of alarm lines. The strobes shall have white collars with red FIRE lettering with a red trim ring and flash at approximately once per second. They shall operate from standard signaling circuits or addressable single or multi-zone I/O modules. Install, in accordance with ANSI/NFPA 72 National Fire Alarm Code (2002), which meet or exceed the illumination which results from the ADA specified strobe intensity of 75 candela at 50-feet in all directions. Strobes throughout the entire building shall be synchronized.

I. HORN/STROBES

Horn/strobes shall include a die cast metal housing to protect the horn mechanism and a polycarbonate lens to protect the strobe circuitry. The strobes shall have white or clear lenses and shall flash at approximately 1 flash per second. They shall operate on 24-volt DC with the sound output of 15 db above ambient. The device can be surface or flush mount. For flush mount applications, a red trim ring (SFP) can be used. All models shall have screw terminal inputs for in-out field wiring and all models shall be polarized for line supervision. The finish shall be textured red enamel. All models shall be listed to standard UL 1971 signaling devices for hearing impaired and CAN/VLC5526 standard for visual signal device for fire alarm systems. Install, in accordance with ANSI/NFPA 72 National Fire Alarm Code (2002), which meet or exceed the illumination which results from the ADA specified strobe intensity of 75 candela at 50 feet. Strobes throughout the entire building shall be synchronized.

J. AIR DUCT SMOKE DETECTOR

Air duct smoke detectors shall be provided as required by the building codes and fire codes. Device construction shall be per U.L. 268A specifically for use in air handling systems.

K. SUBMITTALS AND PAYMENT

For one of the approved manufacturers' listed in Section A, the Contractor shall submit within ten (10) days of award of the Contract, catalog cut sheets for each component to be supplied for a complete and operational system.

After receipt of the above information, the City will review the components and will notify the Contractor in writing, within twenty (20) days of the submittals, of the compliance or noncompliance of the components. Upon written notification by the City, the Contractor shall have final construction plans prepared for the selected system. The plans, specifications, load calculations, etc., shall be prepared and stamped by an Arizona Registrant addressing all information as required by the plans, specifications, applicable codes and the City. Contractor shall submit final plans to the Engineer for the review and approval by the City's Building Safety Division. Contractor shall revise plans as required by the City to comply with the bid documents and applicable codes. Preparation of final plans, any revisions and all costs for installation for a fully functional system shall be included in the Lump Sum bid item in the bid schedule.

L. TESTING:

Before the installation shall be considered completed and acceptable by the awarding authority, a test of the system shall be performed in accordance with NFPA 72 and as follows:

1. The Contractor's job foreman, in the presence of a representative of the manufacturer, a representative of the Owner, and the City's Building Inspector shall operate every building fire alarm device to ensure proper operation and correct annunciation at the control panel.
2. At least one-half of all tests shall be performed on battery standby power.

Fire Alarm System - Technical Specifications

3. Where application of heat would destroy any detector, it may be manually activated.
4. The communication loops and the indicating appliance circuits shall be opened in at least two (2) locations per zone to check for the presence of correct supervisory circuitry.
5. When the testing has been completed to the satisfaction of both the Contractor's job foreman and the representatives of the manufacturer and Owner, a notarized letter co-signed by each attesting to the satisfactory completion of said testing shall be forwarded to the Owner and the Fire Department.
6. The Contractor shall leave the fire alarm system in proper working order, and, without additional expense to the owner, shall replace any defective materials or equipment provided by him under this contract within three (3) years from the date of final acceptance.
7. Prior to final test, the Building Inspector shall be notified in accordance with local requirements.

M. WARRANTY:

The Contractor shall provide the following warranty:

1. The Contractor shall warrant all equipment and wiring free from inherent mechanical and electrical defects for three (3) years from the date of final acceptance by Owner.
2. Warranty service for the equipment shall be provided by the system supplier's factory trained representative 24-hours a day and seven days a week, including holidays. Response time shall be within eight hours of the original call for service.

END OF SECTION